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ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 01/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _12 November 2002_ .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-3,6,7,9,10,13-20,22-25 and 27-29_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-3,6,7,9,10,13-20,22-25 and 27-29_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _09_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on 12 November 2002 with respect to claims 1 - 3, 6, 7, 13 -

20, 22 - 25, 27 - 28 have been considered but are moot in view of the new ground(s) of rejection.

2.   Applicant's arguments have been fully considered but they are not persuasive.

Regarding the argument filed on 12 November 2002 concerning Claims 9 and 10 on

pages 11 and 12 ("In addition, Hsu et al. do not describe nor suggest a control mechanism

configured to control operation of the machine/system control device in accordance with user-

specific information in accordance with a sense fingerprint."), in Fig. 4, Hsu teaches using

handheld fob 14 to access car door 10.1. As explained in Col. 6, lines 25 - 34, door 10.1 has an

actuator 50 for performing some desired operation and a database 52 for storing each registered

user's identification data (i.e., fingerprint), user fob public encryption key, and user cyclic

redundancy code (CRC). Hsu imparts that if fob 14's doubly encrypted CRC matches with the

CRC stored in database 52 associated with the user name seeking access, door 10.1 signals

actuator 50 to open the door or to perform other desired operations (see Col. 7, lines 32 - 34).

Hsu suggests in Fig. 4 that in addition to opening door 10.1, actuator 50 also controls the

ignition and adjusts the air bag, seat, and radio. Here it is understood that actuator 50 adjusts

the air bag, seat, and radio in accordance with user-specific information stored in database 52.

Regarding the argument filed on 12 November 2002 concerning Claim 29 on page 15

("Borza does not describe nor suggest a method which includes controlling operation of the

machine in accordance with user-specific information."), Borza's processor based system (PBS)

8, as shown in Fig. 4, has a non-volatile memory (NVM) 16*d* that stores biometric input data of

temporary users (see Col. 4, lines 46 - 48). Because the biometric input data of temporary users

are stored in NVM 16d, it is understood that the temporary users, in addition to the permanent

user, are registered users. Borza further imparts that the permanent user is able to limit or

restrict a temporary user's access to particular functions (see Col. 5, lines 10 – 16) and that PBS 8

has user programmable means for programming parameters associated with stored

biometrically related data (see Col. 6, lines 4 – 9 and 13 - 20), thus implying that a permanent

user is able to program the vehicle to operate in accordance with the biometric data for each

registered temporary user.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9 and 10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The limitation "a slot for insertion of a read/write device,

said slot comprising an external terminal configured to mate with an exposed terminal of the

read/write device, said external terminal being where data is passed to said control device, the

data being at least fingerprint data from a user of the read/write device" is considered to be

new matter. Claims 9 and 10 recite a machine/system control device. On page 12, the

Applicant discloses that Fig. 4 is a conceptual diagram of a car driving system that is a

machine/system control device. The Applicant further imparts that a photocell 4a installed on

the exterior of a vehicle is for receiving infrared data from remote controller 3, which is

illustrated in Fig. 5. As indicated in Fig. 5 and the specifications, remote controller 3 lacks an external terminal since it transmits the fingerprint data to photocell 4a. As explained in the specifications, the device with an exposed terminal is a flat information recording/processing device, such as a driver's license (see page 6).

Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "fingerprint data from a person who has authority to inspect or rewrite information in the read/write device" is considered to be new matter. Claim 18 depends on Claim 9, which recites a machine/system control device. The machine/system control device is described from page 12 ("Figure 4 is a conceptual diagram of a car driving system that is machine/system control device...") through page 18, and the Applicant omits teaching that (1) user-specific information is fingerprint data and (2) the fingerprint data must be from "a person who has authority to inspect or rewrite information in the read/write device." The Applicant differentiates between fingerprint data and user-specific information. On page 14, the Applicant imparts that "name, sex, age, license number, category of the license, upper speed limit, etc." are examples of user-specific information and are stored in personal information memory 43, whereas fingerprint data is stored in fingerprint register memory 41. Furthermore, the Applicant only specifies that the fingerprint register memory 41 stores fingerprints of authorized drivers, not "a person who has authority to inspect or rewrite information in the read/write device."

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

5.   Claims 1 - 3, 13 - 16, and 27 - 28 are rejected under 35 U.S.C. 102(b) as being anticipated

by Lane U.S. Patent No. 5,623,552.

Referring to Claims 1 - 3, as illustrated in Figs. 1A and 2, Lane's self-authenticating

identification (ID) card 100 comprises a (a) thin fingerprint sensor 102 and (b) ridge detectors

140 (see Fig. 5), wherein both are configured to produce a two-dimensional binary image of the

ridge pattern in the fingerprint (see Col. 7, lines 14 - 16). Here it is understood that ridge

detectors 140 form a conversion unit configured to convert fingerprint data into digital electrical

signal. As shown in Figs. 1B and 3, Lane's self-authenticating ID card 100 further comprises a

(c) magnetic stripe 109 that is exposed on the surface of ID card 100 for providing data to

magnetic stripe reader 121 of authorization device 120 in Fig. 3. Here it is understood that

magnetic strip 109 is an exposed terminal configured for connecting with authorization device

120 (i.e., an external terminal). In addition, Lane teaches that ID card 100 has a speaker 111 for

audibly indicating that the sensed fingerprint information matches the stored fingerprint

information and that authorization device 120 has an audio receiver 122 for receiving an audio

signal from speaker 111 (see Col. 5, lines 52 – 55 and Col. 6, lines 18 – 21). Here it is understood

that speaker 111 is also an exposed terminal configured for connecting with authorization

device 120. Lane's ID card 100 also includes: (d) a memory 103 configured to store registered

fingerprint data (see Col. 5, lines 9 – 10); and (e) an authenticator 107 or fingerprint matching

unit that is connected to fingerprint sensor 102 and memory 103 for comparing information

related to a sensed fingerprint with the stored fingerprint information and for producing an

authentication signal if the sensed fingerprint information matches the stored fingerprint

information (see Col. 5, lines 38 – 43).

Regarding Claims 13 and 14, Lane discloses a second memory (see Fig. 1B, memory

stripe 109) for storing specific information related to the card user (see Col. 2, lines 54 – 60).

Regarding Claims 15 and 16, the fingerprint sensor of Lane is a surface pressure input

type sensor (see Col. 6, lines 50 – 56).

Referring to Claims 27 and 28, as shown in Fig. 14, Lane's identity verification method

comprises the steps of: (a) recording fingerprint data of the individual as registered fingerprint

data in a memory unit of an ID card (see steps 201 and 202); (b) sensing a fingerprint of the

individual on a fingerprint sensor of the ID card (see step 204); (c) comparing the sensed

fingerprint to the registered fingerprint data using an authenticator (see Fig. 1A, authenticator

107; Fig. 14, step 205; and Col. 5, lines 38 – 43); (d) generating a signal from the ID card

indicative of a match of the sensed and registered fingerprint data (see steps 206 and 207); and

(e) outputting the result of the comparison via audio generator 108 (see Fig. 2) and speaker 111

to audio receiver 122 of authorization device 120 (see Col. 5, lines 55 – 58 and Col. 6, lines 18 –

21). For reasons as explained in Claims 1 – 3, it is understood that speaker 111 is an exposed

terminal for connecting with audio receiver 122 of authorization device 120.

6.   Claims 9, 10, 18, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu

et al. U.S. Patent No. 6,041,410.

Referring to Claims 9 and 10, as illustrated in Fig. 3, Hsu teaches a control device that

comprises: (a) a fingerprint sensor 18; (b) a correlator 48 or fingerprint matching unit (see Col. 5,

lines 3 – 4); (c) a processor 26 or control mechanism (see Fig. 4, door 10.1 and actuator 50; Col. 3,

lines 1 – 11; Col. 5, lines 1 – 10; and Col. 6, lines 10 - 34), and (d) a reference image storage 32 or

memory unit for storing fingerprint data (see Col. 5, line 6). Hsu imparts that if fob 14's doubly

encrypted CRC matches with the CRC stored in database 52 associated with the user name

seeking access, door 10.1 signals actuator 50 to open the door or to perform other desired

operations (see Col. 7, lines 32 – 34). Hsu suggests in Fig. 4 that in addition to opening door

10.1, actuator 50 also controls the ignition and adjusts the air bag, seat, and radio. Here it is

understood that actuator 50 is controlled by processor 26 and adjusts the air bag, seat, and radio

in accordance with user-specific information stored in database 52.

Regarding Claim 18, because Hsu imparts utilizing the user's name or other identifying

information in addition to fingerprint data during the registration process for access to one's

automobile (see Col. 6, lines 10 – 14), it is understood that the user-specific information is age.

Regarding Claim 19, Hsu's fingerprint sensor is a surface pressure input type fingerprint

sensor (see Fig. 2, fingerprint sensor 16).

7.   Claims 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Borza U.S.

Patent No. 5,867,802.

Referring to Claim 29, in Fig. 5, Borza illustrates the method of controlling a machine

that comprises the steps of (a) sensing a fingerprint of a user (see step 50); (b) comparing the

sensed fingerprint with registered fingerprint data (see step 52); (c) controlling access to the

machine in accordance with whether the sensed fingerprint data matches the registered

fingerprint data (see step 56) and (d) controlling operation of the machine (such as utilizing the

radio, fuel flow rate, etc.) in accordance with user-specific information when there is a match of

fingerprints (see Col. 5, lines 11 – 20 and 25 – 30; and Col. 6, lines 4 – 9).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 6, 7, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price-

Francis U.S. Patent No. 5,815,252 in view of Itsumi et al. U.S. Patent No. 5,559,504.

Referring to Claim 6, as shown in Fig. 1, Price-Francis teaches an information

recording/processing system comprising a portable information recording unit (hereinafter

referred to as "optical card 25") having a memory 30 for storing registered fingerprint data and

user-specific information (see Col. 4, lines 20 – 30). Because Price-Francis specifies that memory

30 is either an electronic or optical media and is used by card reader/writer 45 to access

fingerprint and user-specific data (see Col. 4, line 25 and Col. 6, lines 20 – 23), it is understood

that memory 30 is an exposed terminal for connecting with card reader/writer 45 (i.e., external terminal). Still referring to Fig. 1, Price-Francis' system also has a peripheral unit (PU) 37 or information processing unit comprising: (a) card reader/writer 45 or external terminal for interfacing with the exposed terminal of optical card 25 (see Col. 6, lines 20 - 23); (b) a fingerprint matching unit for comparing the fingerprint read from the exposed terminal of optical card 25 (see Fig. 2, step 82 and Col. 6, lines 3 - 4 and 31 - 35); and (c) a display unit 42 for displaying the user-specific information stored in optical card 25 when there is a match in fingerprints (see Col. 4, lines 8 - 11 and Col. 6, lines 40 - 48). Price-Francis' optical card 25, though, lacks a thin fingerprint sensor and a first memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data. In an analogous art, Itsumi's integrated circuit (IC) card 63, as shown in Figs. 24 - 26, comprises: (a) an external terminal 76 for access the external terminal of a banking system or the like (see Col. 15, lines 18 - 20); (b) an array of electrodes 61 serving as a fingerprint input unit (see Col. 15, lines 9 - 11); (c) fingerprint data registration memory 74 for storing registered fingerprints sensed by electrodes 61 (see Col. 15, lines 28 - 30); and (d) an information recording memory 75 (see Col. 15, line 17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the card of Price-Francis as taught by Itsumi because a card with a fingerprint sensor and memory for storing registered fingerprint data enables a user to register his/her fingerprint data directly onto the card, thus saving time and improving convenience.

Regarding Claim 7, Price-Francis' information processing unit is configured to read out, to write in, and to rewrite information stored in memory 30 of optical 25 (see Col. 2, lines 63 - 66; Col. 6, lines 23 - 27 and 51 - 53).

Regarding Claim 17, Price-Francis' information processing unit, as shown in Fig. 1, has a fingerprint scanner 35 (see Col. 5, lines 50 – 51) and a memory configured to store the detected fingerprint data as registered data (see Col. 8, lines 2 – 7). Here it is understood that fingerprint scanner 35 has a thin fingerprint sensor that is well known to those of ordinary skill in the art.

10.   Claims 20 and 22 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price-Francis U.S. Patent No. 5,815,252.

Referring to Claim 20, Price-Francis' method for accessing a database of an information recording/processing device (hereinafter referred to as "optical card 25") comprises the steps of: (a) inserting optical card 25 into a card reader/writer 45 or control device (see Fig. 2, step 62); (b) reading identification and fingerprint data from memory 30 of optical card 25 carried by a second person (see Col. 2, lines 63 – 67; Col. 3, lines 1 – 3; and Col. 4, lines 20 - 30); (c) pressing a finger of the second person on a fingerprint scanner 35 to obtain a fingerprint (see Fig. 2, step 64 and Col. 5, lines 50 – 51); and (d) comparing the obtained fingerprint of the person to the fingerprint data read from the ID card (see Col. 6, lines 31 – 35). Here it is understood that the insertion of optical card 25 connects the card to the control device. Price-Francis, though, omits teaching the steps of: (a) registering fingerprint of a first person in a memory of the control device; (b) pressing a finger of the first person on a fingerprint sensor module of the control device to offer a fingerprint; and (c) conditioning access to the database on a match of the offered fingerprint to fingerprint data in the memory of the control device. However, the Examiner takes Official Notice that the use of biometric sensors to prevent unauthorized access to databases and the method of registering authorized users' fingerprints and allowing verified users to access the databases are well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the above mentioned steps to

Price-Francis' method since the Examiner takes Official Notice that such modifications are well known and will prevent unauthorized users from accessing sensitive data, thus improving the security of the system.

Regarding Claims 22 - 24, Price-Francis' method also includes the steps of: (e) displaying verification when the obtained fingerprint of the second person matches the fingerprint data read from optical card 25 (see Col. 6, lines 40 - 58); (f) displaying specific information about the verified person (see Figs. 3 and 4); and (g) updating information stored in the memory of optical card 25 (see Col. 6, lines 51 - 53).

11.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. U.S. Patent No. 6,111,977 in view of Borza U.S. Patent No. 5,867,802.

Scott's method of controlling access to a vehicle comprises the steps of placing a finger on a fingerprint sensor module of a remote control module, transmitting minutiae data of the fingerprint to a receiver mounted in the vehicle, comparing the minutiae data to data stored in a database of registered drivers, and conditioning the vehicle to unlock the door upon a match of the minutiae data to data stored in the database of registered drivers (see Col. 2, lines 16 - 39). Scott is silent on the step of limiting vehicular speed in accordance with a matched registered driver. In an analogous art, Borza's method of preventing unauthorized use of a vehicle includes the step of allowing a permanent user to limit the fuel flow rate to a predetermined maximum when a temporary user accesses the vehicle, thus limiting the vehicle's speed in accordance with data stored in NVM 16d for that temporary user (see Col. 5, lines 10 - 6 and Col. 6, lines 4 - 9). Because Borza teaches that a permanent user can add temporary users to the system and that biometric data of temporary users are stored in memory 16d, it is understood that temporary users, in addition to a permanent user, are registered drivers. Therefore, it

would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Scott as taught by Borza because the step of restricting a registered temporary user's access to particular vehicle functions, such as the fuel flow rate or usage of the radio, provides the permanent user enhanced control of the vehicle.

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.   Accordingly, **THIS ACTION IS MADE FINAL.**   See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.
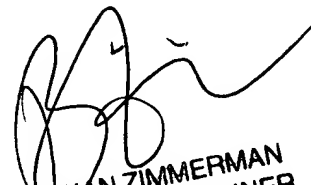
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9314 for regular

communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-4700.

CY
January 22, 2003

BRIAN ZIMMERMAN
PRIMARY EXAMINER